WO 2005/021577 PCT/US2004/025144

SEQUENCE LISTING

- <110> University of Tennessee Research Foundation Mullin, Beth C.
 Gupta, Rakesh
 Dobritsa, Svetlana V.
- <120> Novel Plant Glycine and Histidine-Rich Metal-Binding Protein Family and Uses Thereof
- <130> UTR-108XC1 PCT
- <140> (not yet assigned)
- <141> 2004-08-02
- <150> US 60/491,939
- <151> 2003-08-01
- <160> 4
- <170> PatentIn version 3.2
- <210> 1
- <211> 99
- <212> PRT
- <213> Alnus glutinosa
- <220>
- <221> MISC_FEATURE
- <222> (1)..(26)
- <223> signal sequence or signal peptide
- <220>
- <221> MISC_FEATURE
- <222> (50)..(83)
- <223> metal binding domain
- <400> 1
- Met Gly Tyr Ser Lys Thr Phe Leu Leu Leu Gly Leu Ala Phe Ala Val $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$
- Val Leu Leu Ile Ser Ser Asp Val Ser Ala Ser Glu Leu Ala Val Ala 20 25 30
- Ala Gln Thr Lys Glu Asn Met Gln Thr Asp Gly Val Glu Glu Asp Lys 35 40 45
- Tyr His Gly His Arg His Val His Gly His Gly His Val His 50 50 60
- Gly Asn Gly Asn Glu His Gly His Gly His His Gly Arg Gly His 65 70 75 80
- Pro Gly His Gly Ala Ala Ala Asp Glu Thr Glu Thr Glu Thr 85 90 95

WO 2005/021577

```
Asn Gln Asn
```

```
<210>
      2
<211>
      655
<212> DNA
<213> Alnus glutinosa
<220>
<221> MISC FEATURE
<222> (74)..(.373)
<223> Coding sequence (positions (74)..(373))
<220>
<221> MISC FEATURE
<222> (74)..(373)
<223> coding sequence (positions (74)..(373))
<400> 2
aattaatcat cttagagttt gtttccctag ctagtactac attgtctcca atcctcttca
                                                                      60
ttgttaacga aaaatgggtt actccaagac ttttcttctc cttggccttg cctttgctgt
                                                                     120
tgtgctcctc atctcctccg atgtctcagc ttctgagctt gctgttgccg ctcaaaccaa
                                                                     180
ggagaatatg caaactgacg gtgtggagga ggataagtat catggccatc gtcacgtgca
                                                                     240
tggacatggg catggacatg tacatgggaa tgggaatgaa catggacatg gtcatcacca
                                                                     300
cggccgtggt cacccaggac acggtgctgc tgcagacgag acagaaaccg aaactgaaac
                                                                     360
caaccaaaat tagaccaatc ttttgattcg tcctatatat qctatcaqtt qtacqtacqt
                                                                     420
ctaagtgtgt ctaagtcgta atatgtggct taattatcta attaagcttg tatgccaata
                                                                     480
aactttatgt ttctactttt gtcatgtgta atttttgctt ttctatgtat tacaatgtac
                                                                     540
gctgtagcat atcaaaatta aacgaatcct ttgtcctata tatatatat tgcaactttt
                                                                     600
gaaaggctgt acgtgaataa gattatattg gatgaatata tagtttatga attct
                                                                     655
<210>
       3
<211> 26
<212> PRT
<213> Alnus glutinosa
<220>
<221> MISC FEATURE
<222>
       (1)..(26)
<223> signal sequence or signal peptide
<400> 3
Met Gly Tyr Ser Lys Thr Phe Leu Leu Gly Leu Ala Phe Ala Val
```

2

Val Leu Leu Ile Ser Ser Asp Val Ser Ala

PCT/US2004/025144

20 25

<210> 4

<211> 34 <212> PRT

<213> Alnus glutinosa

<220>

<221> MISC_FEATURE

<222> (1)..(34)

<223> metal binding domain

<400> 4

His Gly His Arg His Val His Gly His Gly His Gly His Val His Gly 5 10

Asn Gly Asn Glu His Gly His Gly His His Gly Arg Gly His Pro 30

Gly His